

SEQUENCE LISTING

SEQ ID NO:1

Mouse TGR18 DNA: (start and stop codons in bold)

5 GCTCCTGGCAGAGTTTTCTGTGCGAGACAGAAGCCGACAGCAGAA**TGGCACAGAATTTATC**
TTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATAAGTACTACCTCTCTGCATTTTA
TGCAATCGAGTTCATTTTTTGGACTGCTTGGGAATGTCAGTGTGGTGTTCGGCTACCTCTT
CTGCATGAAGAACTGGAACAGCAGCAATGTCTATCTTTTTAACCTTTCCATCTCTGACTT
TGCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTTATGCCAATGATAAGGGGACCTA
10 TGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACCAACCTCTACACCAGCAT
CCTCTTCCTCACTTTCATTAGCATGGACCGATATCTGCTCATGAAGTACCCTTTCCGAGA
ACACTTCTACAAAAGAAGGAATTTGCCATTTTAATCTCGCTGGCTGTCTGGGCCTTAGT
GACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATTCTGTCCCAAAGAAGAGGGCAG
TAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAACACAATCTCATTTACAGCCTCTG
15 CCTGACTTTGTTGGGCTTCCTAATTCCTCTCTCTGTGATGTGCTTCTTCTACTACAAGAT
GGTAGTCTTCTTAAAGAGGAGGAGCCAGCAGCAAGCAACTGCCCTGCCACTGGACAAACC
CCAACGCCTGGTGGTCCCTGGCGGTTGTGATCTTCTCTATACTCTTCACACCCTATCATAT
CATGCGCAATTTGAGGATCGCCTCACGCCTGGATAGTTGGCCACAAGGATGTACACAGAA
GGCCATCAAATCTATATACACACTGACACGGCCTCTGGCCTTTCTGAACAGTGCCATCAA
20 TCCCATCTTCTACTTCCTCATGGGAGACCATTACAGAGAGATGCTGATTAGTAAGTTCAG
ACAATACTTCAAGTCCCTTACATCCTTCAGGACAT**AG**AGCTGCTGGATGCAGGTCTTCACT
CAGCCAAAATGAGACACTTGATAAACAGTGCTGTGCAGTTGAGTTTTAACTAAGTAAACC
ACCATTTCTAGGCTTTAGCTTTCCACCATCCTCCAACCCCCAGGGCTGGAGTACAAGCTG
GGTCCACATGAATCAGAAGGCAGCTCTCTGTTCTGATTTTAGGTTATACCCAGAGTATGG
25 AAAAAATAAGGCATGAGAAAGCATTGACATCTTCACTTAAGAACTGAACAAAAGAGAACA
AATATTGTCAATGTTTGGACACTTAGGATCTGAAATCTTGGAAATTTTAAGACCTCTTTT
TCTATCAGTGTAAGGAATACAAGATAGCTAGTTGCAAATGCTGAATGCATTTTCATCAT
TGGTCAGGTCGATAAGCGTGTTTCTGAAATAGTCTTATTTTTATTCTTGTAATATTAAAA
TTTATGTGAAAAATGAATATAATTCAATGTACAACATTAGATTTTCTATTTGAAAATTAT
30 ATTTCTTGAAAAATAACTGCTGTGCCTAAATAAATCAATATA

SEQ ID NO:2

Mouse TGR18 protein

MAQNLSCENWLATEAILNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCKMKNWNSSNVYLFN
LSISDFAFLCTLPILIKSYANDKGTYGDLVLCISNRYVLHTNLYTSILFLTFISMDRYLLM
KYPFREHFLQKKEFAILISLAVWALVTLEVLPLMTFINSVPKEEGSNCIDYASSGNPEHN
5 LIYSLCLTLLGFLIPLSVMCFFYYKMVFLKRRSQQATALPLDKPQRLVVLAVVIFSIL
FTPYHIMRNLRIASRLDSWPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREM
LISKFRQYFKSLTSFRT

10 SEQ ID NO:3

Human TGR 21 DNA

ATGGAGGATCTCTTTAGCCCCCTCAATTCTGCCGCCGGCGCCCAACATTTCCGTGCCCATC
TTGCTGGGCTGGGGTCTCAACCTGACCTTGGGGCAAGGAGCCCCTGCCTCTGGGCCGCCC
15 AGCCGCCGCGTCCGCCTGGTGTTCCTGGGGGTGTCCTGGTGGTGGCGGTGGCAGGCAAC
ACCACAGTGCTGTGCCGCCTGTGCGGCGGCGGCGGGCCCTGGGCGGGCCCCAAGCGTCGC
AAGATGGACTTCCTGCTGGTGCAGCTGGCCCTGGCGGACCTGTACGCGTGCGGGGGCACG
GCGCTGTACAGCTGGCCTGGGAACTGCTGGGCGAGCCCCGCGCGGCCACGGGGGACCTG
GCGTGCCGCTTCCTGCAGCTGCTGCAGGCATCCGGGCGGGGCGCCTCGGCCACCTCGTG
20 GTGCTCATCGCCCTCGAGCGCCGGCGCGCGGTGCGTCTTCCGCACGGCCGGCCGCTGCC
GCGCGTGCCCTCGCCGCCCTGGGCTGGCTGCTGGCACTGCTGCTGGCGCTGCCCCGGCC
TTCGTGGTGC GCGGGGACTCCCCCTCGCCGCTGCCGCCGCCGCCGCCGCCAAGTCCCTG
CAGCCAGGCGCGCCCCCGGCCGCCCGCCCTGGCCGGGGGAGCGTCGCTGCCACGGGATC
TTCGCGCCCCCTGCCGCGCTGGCACCTGCAGGTCTACGCGTTCTACGAGGCCGTGCGGGC
25 TTCGTGCGCCTGTTACGGTCTTGGGCGTCGCTTGCGGCCACCTACTCTCCGTCTGGTGG
CGGCACCGGCCGAGGCCCCCGCGGCTGCAGCGCCCTGGTTCGGCGAGCCAGGTGAGACC
CCTGCGCCCAGCGCGCTGCCCCGCGCCAAGGTGCAGAGCCTGAAGATGAGCCTGCTGCTG
GCGCTGCTGTTTCGTGGGCTGCGAGCTGCCCTACTTTGCCGCCCGGCTGGCGGCCGCGTGG
TCGTCCGGGCCCCGCGGGAGACTGGGAGGGAGAGGGCCTGTCGGCGGCGCTGCGCGTGGTG
30 GCGATGGCCAACAGCGCTCTCAATCCCTTCGTCTACCTCTTCTTCCAGGCGGGCGACTGC
CGGCTCCGGCGACAGCTGCGGAAGCGGCTGGGCTCTCTGTGCTGCGCGCCGACAGGAGGC
GCGGAGGACGAGGAGGGGCCCCGGGGCCACCAGGCGCTCTACCGCCAACGCTGGCCCCAC
CCTCATTATCACCATGCTCGGCGGGAACCGCTGGACGAGGGCGGCTTGCGCCCACCCCT
CCGCGCCCCAGACCCCTGCCTTGCTCCTGCGAAAGTGCCTTCTAG

SEQ ID NO:4

Human TGR21 Protein:

5

MEDLFSPSILPPAPNISVPILLGWGLNLTGQGAPASGPPSRRVRLVFLGVILVVAVAGN
TTVLCRLCGGCGPWAGPKRRKMDFLLVQLALADLYACGGTALSQLAWELLGEPRAATGDL
ACRFLQLLQASGRGASAHLVVLIALERRAVRLPHGRPLPARALAALGWLLALLLALPPA
FVVRGDSPLPPPPPTSLQPGAPPAARAWPGERRCHGIFAPLPRWHLQVYAFYEAVAG
10 FVAPVTVLGVACGHLLSVWWRHRPQAPAAAAPWSASPGRAPAPSALPRAKVQSLKMSLLL
ALLFVGCELPYFAARLAAWSSGPAGDWEGEGLSALRVVAMANSALNPFVYLFFQAGDC
RLRRQLRKRLGSLCCAPOGGAEDEEGPRGHQALYRQRWPHPHYHARREPLDEGGLRPPP
PRPRPLPCSCESAF

15

SEQ ID NO:5

Human TGR62 DNA (start and stop codons in bold)

20

TGACCTTCTTCATCATTGTGATGTG**ATG**CCAGATACTAATAGCACAATCAATTTATCACTA
AGCACTCGTGTTACTTTAGCATTTTTATGTCCCTTAGTAGCTTTTGCTATAATGCTAGGA
AATGCTTTGGTCATTTTAGCTTTTGTGGTGGACAAAACCTTAGACATCGAAGTAGTTAT
TTTTTCTTAACCTGGCCATCTCTGACTTCTTGTGGGTGTGATCTCCATTCCTTTGTAC
ATCCCTCACACGCTGTTTGAATGGGATTTTGGAAAGGAAATCTGTGTATTTTGGCTCACT
ACTGACTATCTGTTATGTACAGCATCTGTATATAACATTGTCCTCATCAGCTATGATCGA
25 TACCTGTCAGTCTCAAATGCTGTGTCTTATAGA**ACT**CAACATACTGGGGTCTTGAAGATT
GTTACTCTGATGGTGGCCGTTTGGGTGCTGGCCTTCTTAGTGAATGGGCCAATGATTCTA
GTTTCAGAGTCTTGAAGGATGAAGGTAGTGAATGTGAACCTGGATTTTTTTCGGAATGG
TACATCCTTGCCATCACATCATTCTTGAATTCGTGATCCCAGTCATCTTAGTCGCTTAT
TTCAACATGAATATTTATTGGAGCCTGTGGAAGCGTGATCATCTCAGTAGGTGCCAAAGC
30 CATCCTGGACTGACTGCTGTCTCTTCCAACATCTGTGGACACTCATTGAGAGGTAGACTA
TCTTCAAGGAGATCTCTTCTGCATCGACAGAAGTTCCTGCATCCTTTCATTGAGAGAGA
CAGAGGAGAAAGAGTAGTCTCATGTTTTCTCAAGAACCAAGATGAATAGCAATACAATT
GCTTCCAAAATGGGTTCCTTCTCCAATCAGATTCTGTAGCTCTTCACCAAAGGGAACAT
GTTGAACTGCTTAGAGCCAGGAGATTAGCCAAGTCACTGGCCATTCTCTTAGGGGTTTTT

GCTGTTTGCTGGGCTCCATATTCTCTGTTCAACAATTGTCCTTTCATTTTATTCCTCAGCA
 ACAGGTCCTAAATCAGTTTGGTATAGAATTGCATTTTGGCTTCAGTGGTTCAATTCCTTT
 GTCAATCCTCTTTTGTATCCATTGTGTACACAAGCGCTTTCAAAGGCTTTCTTGAAAATA
 TTTGTATAAAAAAGCAACCTCTACCATCACAAACACAGTCGGTCAGTATCTTCT**TAA**AGA
 5 CAATTTTCTCACCTCTGTAAATTTTAGTCTCAATCTCACCTAAATGAATCAGGTCTGCCC
 TTTATC

SEQ ID NO:6

10 Human TGR62 protein

MPDTNSTINLSLSTRVTLA**FF**MSLVAFAIMLGNALVILAFVVDKNLRHRSSYFFLNLAIS
 DFFVGVISIPLYIPHTLFEWDFGKEICVFWLTDDYLLCTASVYNIVLISYDRYLSVSNV
 SYRTQHTGVLKIVTLMVAVWVLAFLVNGPMLVSESWKDEGSECEPGFFSEWYILAITSF
 15 LEFVIPVILVAYFNMNIYWSLWKR**DH**LSRCQSH**PGL**TAVSSNICGHSFRGRLSSRRSLSA
 STEVPASFH**SERQ**RRKSSLMFSSRTKMNSNTIASKMGSFSQSDSVALHQREHVELLRARR
 LAKSLAILLG**VFA**VCWAPYSLFTIVLSFYSSATGPKSVWYRIAFWLQWFNSFVNPLLYPL
 CHKRFQKAFLKIFCIKKQPLPSQHRSRVSS

20

SEQ ID NO:7

Human TGR130.1 DNA (start and stop codons in bold):

GCCTCCTTCCTAGAGCCTTCAGTGGCCTCTGCCAGTCTGGCAGACACTTGCAGACCTCTC
 25 TTCTCAGCACCACCAATCTCTGATGCCCTG**CGATG**CCCACACTCAATACTTCTGCCTCTC
 CACCCACATTCTTCTGGGCCAATGCCTCCGGAGGCAGTGTGCTGAGTGCTGATGATGCTC
 CGATGCCTGTCAAATTCCTAGCCCTGAGGCTCATGGTTGCCCTGGCCTATGGGCTTGTGG
 GGGCCATTGGCTTGCTGGGAAATTTGGCGGTGCTGTGGGTACTGAGTAACTGTGCCCGGA
 GAGCCCCTGGCCCACCTTCAGACACCTTCGTCTTCAACCTGGCTCTGGCGGACCTGGGAC
 30 TGGCACTCACTCTCCCCTTTTGGGCAGCCGAGTCGGCACTGGACTTTCACTGGCCCTTCG
 GAGGTGCCCTCTGCAAGATGGTTCTGACGGCCACTGTCCTCAACGTCTATGCCAGCATCT
 TCCTCATCACAGCGCTGAGCGTTGCTCGCTACTGGGTGGTGGCCATGGCTGCGGGGCCAG
 GCACCCACCTCTCACTCTTCTGGGCCCCGAATAGCCACCCTGGCAGTGTGGGCGGCGGCTG
 CCCTGGTGACGGTGCCACAGCTGTCTTCGGGGTGGAGGGTGAGGTGTGTGGTGTGCGCC

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 T03290.0650

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 A2
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TTTGCCTGCTGCGTTTCCCCAGCAGGTACTGGCTGGGGGCCTACCAGCTGCAGAGGGTGG
TGCTGGCTTTCATGGTGCCCTTGGGCGTCATCACCACCAGCTACCTGCTGCTGCTGGCCT
TCCTGCAGCGGCGGCAACGGCGGGCAGGACAGCAGGGTCGTGGCCCGCTCTGTCCGCA
TCCTGGTGGCTTCCTTCTTCTCTGCTGGTTTCCCAACCATGTGGTCACTCTCTGGGGTG
5 TCCTGGTGAAGTTTGACCTGGTGCCCTGGAACAGTACTTTCTATACTATCCAGACGTATG
TCTTCCCTGTCACTACTTGCTTGGCACACAGCAATAGCTGCCTCAACCCTGTGCTGTACT
GTCTCCTGAGGCGGAGCCCCGGCAGGCTCTGGCAGGCACCTTCAGGGATCTGCGGTCTGA
GGCTGTGGCCCCAGGCGGAGGCTGGGTGCAACAGGTGGCCCTAAAGCAGGTAGGCAGGC
GGTGGGTCTGCAAGCAACCCCCGGGAGAGCCGCCCTTCTACCCTGCTCACCAACCTGGACA
10 GAGGGACACCCGGGTGAAGGGCGCAAGCTGAACACACTCCTCTTTCTGAGATCCACCAAG
TGTAGGATCCTTGAGTCCTGGGGAGAAGCTGCCCTCTCTGCCAGGCTGCAGTGCCCTCAG
GGAAAAGTCTGATCTTTGATCCCCAACTCTGGGTGTGGTGAATGGGGGAGGCGGGGGCTC
AGATCAGAGCTGGATGTGACAAAGCTTAAGTCTTTATTTGGAGATGGGAAAGAAGAGGAT
CTGAGAATAAACCTCTGGATTATCC

15

SEQ ID NO:8

TGR130.1 Protein

20

MPTLNTSASPPTFFWANASGGSVLSADDAPMPVKFLALRLMVALAYGLVGAIGLLGNLAV
LWVLSNCARRAPGPPSDTFVFNALALDLGLALTLPFWAAESALDFHWPFGGALCKMVLTA
TVLNVIYASIFLITALSVARYWVWAMAAGPGTHLSLFWARIATLAVWAAAALVTVPTAVFG
VEGEVCGVRLCLLRFPSTRYLWGLAYQLQRVVLA FMVPLGVITTSYLLLLLAFLQRRQRRQD
SRVVARSVRILVASFFLCWFPNHVVTLWGVLVKFDLPWNSTFYTIQTYVFPVTTCLAHS
25 NSCLNPVLYCLLRREPRQALAGTFRDLRSRLWPQGGGWVQQVALKQVGRRWVASNPRESR
PSTLLTNLDRGTPG

SEQ ID NO:9

30 TGR 130.2 DNA (start and stop codons in bold)

GCCTCCTTCCTAGAGCCTTCAGTGGCCTCTGCCAGTCTGGCAGACACTTGCAGACCTCTC
TTCTCAGCACCACCAATCTCTGATGCCCTGCGATGCCCCACACTCAATACTTCTGCCTCTC
CACCCACATTCTTCTGGGCCAATGCCTCCGGAGGCAGTGTGCTGAGTGCTGATGATGCTC

CGATGCCTGTCAAATTCCTAGCCCTGAGGCTCATGGTTGCCCTGGCCTATGGGCTTGTGG
 GGGCCATTGGCTTGCTGGGAAATTTGGCGGTGCTGTGGGTACTGAGTAACTGTGCCCCGA
 GAGCCCCTGGCCACCTTCAGACACCTTCGTCTTCAACCTGGCTCTGGCGGACCTGGGAC
 TGGCACTCACTCTGCCCCTTTGGGCAGCCGAGTCGGCACTGGACTTTCCTGGCCCTTCG
 5 GAGGTGCCCTCTGCAAGATGGTTCTGACGGCCACTGTCCTCAACGTCTATGCCAGCATCT
 TCCTCATCACAGCGCTGAGCGTTGCTCGCTACTGGGTGGTGGCCATGGCTGCGGGGCCAG
 GCACCCACCTCTCACTCTTCTGGGCCCGAATAGCCACCCTGGCAGTGTGGGCGGCGGCTG
 CCCTGGTGACGGTGCCACAGCTGTCTTCGGGGTGGAGGGTGAGGTGTGTGGTGTGCGCC
 TTTGCCTGCTGCGTTTCCCAGCAGGTACTGGCTGGGGGCCTACCAGCTGCAGAGGGTGG
 10 TGCTGGCTTTTCATGGTGCCCTTGGGCGTCATCACCACCAGCTACCTGCTGCTGCTGGCCT
 TCCTGCAGCGGCGGCAACGGCGGCGGCAGGACAGCAGGGTCGTGGCCCGCTCTGTCCGCA
 TCCTGGTGGCTTCCTTCTTCTCTGCTGGTTTTCCCAACCATGTGGTCACTCTCTGGGGTG
 TCCTGGTGAAGTTTGACCTGGTGCCCTGGAACAGTACTTTCTATACTATCCAGACGTATG
 TCTTCCCTGTCACTACTTGCTTGGCACACAGCAATAGCTGCCTCAACCCTGTGCTGTACT
 15 GTCTCCTGAGGCGGGAGCCCCGGCAGGCTCTGGCAGGCACCTTCAGGGATCTGCGGTTGA
 GGCTGTGGCCCCAGGGCGGAGGCTGGGTGCAACAGGTGGCCCTAAAGCAGGTAGGCAGGC
 GGTGGGTCGCAAGCAACCCCCGGGAGAGCCGCCCTTCTACCCTGCTCACCAACCTGGACA
 GAGGGACACCCGGGTGAAGGGCGCAAGCTGAACACACTCCTCTTTCTGAGATCCACCAAG
 TGTAGGATCCTTGAGTCCTGGGGAGAAGCTGCCCTCTCTGCCAGGCTGCAGTGCCCTCAG
 20 GGAAAAGTCTGATCTTTGATCCCCAACTCTGGGTGTGGTGAATGGGGGAGGCGGGGGCTC
 AGATCAGAGCTGGATGTGACAAAGCTTAAGTCTTTATTTGGAGATGGGAAAGAAGAGGAT
 CTGAGAATAAACCTCTGGATTATCC

25 **SEQ ID NO:10**
 human TGR130.2 protein

MPTLNTSASPPTFFWANASGGSVLSADDAPMEVKFLALRLMVALAYGLVGAIGLLGNLAV
 LWVLSNCARRAPGPPSDTFVFNALALADLGLALTLPFWAAESALDFHWPFGGALCKMVLTA
 30 TVLNVYASIFLITALSVARYWVMAAGPGTHLSLFWARIATLAVWAAAALVTVP TAVFG
 VEGEVCGVRLCLLRFPSRYWLGA YQLQRVLA FMVPLGVITTSYLLLLAFLQRRQRRRQD
 SRVVARSVRILVASFFLCWFPNHVVT LWGVLVKFDLVPWNSTFYTIQTYVFPVTTCLAHS
 NSCLNPVLYCLLRREPRQALAGTFRDLRLRLWPQGGWVQQVALKQVGRRWVASNPRESR
 PSTLLTNLDRGTPG

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SEQ ID NO:11

Human TGR213 DNA

5

ATGGAGTCCTCACCCATCCCCAGTCATCAGGGAACCTCTTCCACTTTGGGGAGGGTCCCT
CAAACCCAGGTCCCTCTACTGCCAGTGGGGTCCCGAGGTGGGGCTACGGGATGTTGCT
TCGGAATCTGTGGCCCTCTTCTTCATGCTCCTGCTGGACTTGACTGCTGTGGCTGGCAAT

10

CACCTCTGCCTGGTGGACCTGCTGGCTGCCCTGACCCTCATGCCCCCTGGCCATGCTCTCC
AGCTCTGCCCTCTTTGACCACGCCCTCTTGGGGAGGTGGCCTGCCGCTCTACTTGTTT
CTGAGCGTGTGCTTTGTGAGCCTGGCCATCCTCTCGGTGTCAGCCATCAATGTGGAGCGC

15

AGGGTCTCCTGGGAGGAAGGAGCTCCAGTGTCCCCCAGGCTGTTCACTCCAGTGGAGC
CACAGTGCCTACTGCCAGCTTTTTGTGGTGGTCTTTGCTGTCCTTTACTTTCTGTTGCC
CTGCTCCTCATACTTGTGGTCTACTGCAGCATGTTCCGAGTGGCCCGCGTGGCTGCCATG

20

CAGCACGGGCGCTGCCCAGTGGATGGAGACACCCCGCAACGCTCCGAATCTCTCAGC
AGCCGCTCCACGATGGTCACAGCTCGGGGGCCCCCAGACCACCCACACCGGACGTTT
GGGGGAGGGAAAGCAGCAGTGGTTCTCCTGGCTGTGGGGGGACAGTTCCTGCTCTGTTGG

25

TTGCCCTACTTCTCTTTCCACCTCTATGTTGCCCTGAGTGCTCAGCCCATTTCAACTGGG
CAGGTGGAGAGTGTGGTCACCTGGATTGGCTACTTTTGCTTCACTTCCAACCCTTTCTTC
TATGGATGTCTCAACCGGCAGATCCGGGGGGAGCTCAGCAAGCAGTTTGTCTGCTTCTTC

AAGCCAGCTCCAGAGGAGGAGCTGAGGCTGCCTAGCCGGGAGGGCTCCATTGAGGAGAAC
TTCCTGCAGTTTCCTTCAGGGGACTGGCTGTCCTTCTGAGTCCTGGGTTTCCCGACCCCTA
CCCAGCCCCAAGCAGGAGCCACCTGCTGTTGACTTTTGAATCCCAGGCCAGATAGCTGAG
GAGACCTCTGAGTTCCTGGAGCAGCAACTCACCAGCGACATCATCATGTCAGACAGCTAC
CTCCGTCCTGCCGCTCACCCCGGCTGGAGTCATGA

30

SEQ ID NO:12

Human TGR213 protein

MESSPIQSSGMSSTLGRVPQTPGPSTASGVPEVGLRDVASESVALFFMLLLDLTAVAGN
AAVMAVIAKTPADRKFFVVFHLCVLDLLAALTLMPLAMLSSSALFDHALFGEVACRLYL
LSVCFVSLAILSVSAINVERYVYVHPMRYEVRMTLGLVASVLVGVWVKALAMASVPVLG
RVSWEEGAPSVPPGCSLQWSHSAYCQLFVVVFAVLYFLLPLLLILVYCSMFRVARVAAM
5 QHGPLPTWMETPRQRSESLSSRSTMVTSSGAPQTPHRTFGGGKAAVVLLAVGGQFLLCW
LPYFSFHLVVALSAQPISTGQVESVVTWIGYFCFTSNPFFYGCLNRQIRGELSKQFVCF
KPAPEEELRLPSREGSIEENFLQFLQGTGCPSESWVSRPLPSPKQEPVDFRIPGQIAE
ETSEFLEQQLTSDIIMSDSYLRPAASPRLES

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SEQ ID NO:13

human novel edg receptor (hEDG) DNA:

15

ATGGAGTCGGGGCTGCTGCGGCCGCGCCGGTGAGCGAGGTCATCGTCCTGCATTACAAC
TACACCGCAAGCTCCGCGGTGCGCGCTACCAGCCGGGTGCCGGCCTGCGCGCCGACGCC
GTGGTGTGCCTGGCGGTGTGCGCCTTCATCGTGCTAGAGAATCTAGCCGTGTTGTTGGTG
CTCGGACGCCACCCGCGCTTCCACGCTCCCATGTTCTGCTCCTGGGCAGCCTCACGTTG
TCGGATCTGCTGGCAGGCGCCGCCTACGCCGCCAACATCCTACTGTGCGGGCCGCTCACG
CTGAAACTGTCCCCCGCGCTCTGGTTGCGACGGGAGGGAGGCGTCTTCGTGGCACTCACT
20 GCGTCCGTGCTGAGCCTCCTGGCCATCGCGCTGGAGCGCAGCCTCACCATGGCGCGCAGG
GGGCCCCGCGCCCGTCTCCAGTCGGGGGCGCACGCTGGCGATGGCAGCCGCGGCCTGGGGC
GTGTCGCTGCTCCTCGGGCTCCTGCCAGCGCTGGGCTGGAATTGCCTGGGTGCGCTGGAC
GCTTGCTCCACTGTCTTGCCGCTCTACGCCAAGGCCTACGTGCTCTTCTGCGTGCTCGCC
TTCGTGGGCATCCTGGCCGCTATCTGTGCACTCTACGCGCGCATCTACTGCCAGGTACGC
25 GCCAACGCGCGGCGCCTGCCGGCACGGCCCCGGGACTGCGGGGACCACCTCGACCCGGGCG
CGTCGCAAGCCGCGCTCGCTGGCCTTGCTGCGCACGCTCAGCGTGGTGCTCCTGGCCTTT
GTGGCATGTTGGGGCCCCCTCTTCTGCTGCTGTTGCTCGACGTGGCGTGCCCGGCGCGC
ACCTGTCTGTACTCCTGCAGGCCGATCCCTTCTGGGACTGGCCATGGCCAACTCACTT
CTGAACCCCATCATCTACACGCTCACCAACCGCGACCTGCGCCACGCGCTCCTGCGCCTG
30 GTCTGCTGCGGACGCCACTCCTGCGGCAGAGACCGAGTGGCTCCCAGCAGTCGGCGAGC
GCGGCTGAGGCTTCCGGGGGCTGCGCCGCTGCCTGCCCCCGGGCCTTGATGGGAGCTTC
AGCGGCTCGGAGCGCTCATCGCCCCAGCGCGACGGGCTGGACACCAGCGGCTCCACAGGC
AGCCCCGGTGACCCACAGCCGCCCGGACTCTGGTATCAGAACCGGCTGCAGACTGA

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SEQ ID NO:14

Human novel edg receptor protein:

5 MESGLLRPAPVSEVIVLHNYTGKLRGARYQPGAGLRADAVVCLAVCAFI VLENLAVLLV
LGRHPRFHAPMFLLLGSLTSLDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALT
ASVLSLLAIALERSLTMARRGPAPVSSRGRITLMAAAAWGVSLLLGLLPALGWNCLGRLD
ACSTVLPLYAKAYVLCVLAFFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRA
RRKPRSLALLRTL SVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSI
10 LNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRLPPGLDGSF
SGSERSSPQRDGLDTSGSTGSPGAPTAARTLVSEPAAD

SEQ ID NO:15

15 TGR92 DNA

ATGGAACCTTCATAACCTGAGCTCTCCATCTCCCTCTCTCTCCTCCTCTGTTCTCCCTCCC
TCCTTCTCTCCCTCACCTCCTCTGCTCCCTCTGCCTTTACCACTGTGGGGGGGTCTCT
GGAGGGCCCTGCCACCCACCTCTTCTCGCTGGTGTCTGCCTTCTGGCACCAATCCTG
20 GCCCTGGAGTTTGTCTGGGCCTGGTGGGGAACAGTTTGGCCCTCTTCATCTTCTGCATC
CACACGCGGCCCTGGACCTCCAACACGGTGTTCCTGGTCAGCCTGGTGGCCGCTGACTTC
CTCCTGATCAGCAACCTGCCCCTCCGCGTGGACTACTACCTCCTCCATGAGACCTGGCGC
TTTGGGGCTGCTGCCTGCAAAGTCAACCTCTTCATGCTGTCCACCAACCGCACGGCCAGC
GTTGTCTTCCTCACAGCCATCGCACTCAACCGCTACCTGAAGGTGGTGCAGCCCCACCAC
25 GTGCTGAGCCGTGCTTCCGTGGGGGCAGCTGCCCCGGGTGGCCGGGGGACTCTGGGTGGGC
ATCCTGCTCCTCAACGGGCACCTGCTCCTGAGCACCTTCTCCGGCCCCCTCCTGCCTCAGC
TACAGGGTGGGCACGAAGCCCTCGGCCTCGCTCCGCTGGCACCAGGCACTGTACCTGCTG
GAGTTCTTCCTGCCACTGGCGCTCATCCTCTTTGCTATTGTGAGCATTGGGCTCACCATC
CGGAACCGTGGTCTGGGCGGGCAGGCAGGCCCGCAGAGGGCCATGCGTGTGCTGGCCATG
30 GTGGTGGCCGTCTACACCATCTGCTTCTTGCCAGCATCATCTTTGGCATGGCTTCCATG
GTGGCTTTCTGGCTGTCCGCTGCCGATCCCTGGACCTCTGCACACAGCTCTTCCATGGC
TCCCTGGCCTTCACCTACCTCAACAGTGTCTGGACCCCGTGCTCTACTGCTTCTCTAGC
CCCAACTTCCTCCACCAGAGCCGGGCCTTGCTGGGCCTCACGCGGGGGCCGGCAGGGCCCA
GTGAGCGACGAGAGCTCCTACCAACCCTCCAGGCAGTGGCGCTACCGGGAGGCCTCTAGG

AAGGCGGAGGCCATAGGGAAGCTGAAAGTGCAGGGCGAGGTCTCTCTGGAAAAGGAAGGC
TCCTCCCAGGGC

5 **SEQ ID NO:16**

TGR92 protein

MELHNLSSPSPSLSSSVLPPSFSPSPSSAPSAFTTVGGSSGGPCHPTSSSLVSAFLAPIL
ALEFVLGLVGNLALFIFCIHTRPWTSENTVFLVSLVAADFLLISNLPLRVDYLLHETWR
10 FGAAACKVNLFMLSTNRTASVVFLTAIALNRYLKVVQPHHVLSRASVGAAARVAGGLWVG
ILLNGLHLLSTFSGPSCLSYRVGTPKPSASLRWHQALYLLEFFLPLALILFAIVSIGLTI
RNRGLGGQAGPQRAMRVLAMVVAVYTICFLPSIIFGMASMVAFWLSACRSLDLCTQLFHG
SLAFTYLNSVLDPVLYCFSSPNFLHQSRALLGLTRGRQGPVSESSYQPSRQWRYREASR
KAEAIGKLKVQGEVSLEKEGSSQG

15

SEQ ID NO:17

Gene specific primer for 5' RACE

20 GGTAGAACTTCTAAGGTCACTAAGGCCAG

SEQ ID NO:18

nested Gene specific primer for 5' RACE

25 AAGTTCTCGGACAGGGTACTTCATGAGCAG

SEQ ID NO:19

30 Gene specific primer for 3' RACE

CCATCTCTGACTTTGCTTTCCTGTGCACCC

Parameter	Value	Unit
α	0.001	
β	0.001	
γ	0.001	
δ	0.001	
ϵ	0.001	
ζ	0.001	
η	0.001	
θ	0.001	
ι	0.001	
κ	0.001	
λ	0.001	
μ	0.001	
ν	0.001	
ξ	0.001	
\omicron	0.001	
π	0.001	
ρ	0.001	
σ	0.001	
τ	0.001	
υ	0.001	
ϕ	0.001	
χ	0.001	
ψ	0.001	
ω	0.001	
Ω	0.001	
Θ	0.001	
Φ	0.001	
Ψ	0.001	
Ξ	0.001	
\Omicron	0.001	
Π	0.001	
\Rho	0.001	
Σ	0.001	
Υ	0.001	
Φ	0.001	
Ψ	0.001	
Ξ	0.001	
\Omicron	0.001	
Π	0.001	
\Rho	0.001	
Σ	0.001	
Υ	0.001	
Φ	0.001	
Ψ	0.001	
Ξ	0.001	
\Omicron	0.001	
Π	0.001	
\Rho	0.001	
Σ	0.001	
Υ	0.001	
Φ	0.001	
Ψ	0.001	
Ξ	0.001	
\Omicron	0.001	
Π	0.001	
\Rho	0.001	
Σ	0.001	
Υ	0.001	
Φ	0.001	
Ψ	0.001	
Ξ	0.001	
\Omicron	0.001	
Π	0.001	
\Rho	0.001	
Σ	0.001	
Υ	0.001	
Φ	0.001	
Ψ	0.001	
Ξ	0.001	
\Omicron	0.001	
Π	0.001	
\Rho	0.001	
Σ	0.001	
Υ	0.001	
Φ	0.001	
Ψ	0.001	
Ξ	0.001	
\Omicron	0.001	
Π	0.001	
\Rho	0.001	
Σ	0.001	
Υ	0.001	
Φ	0.001	
Ψ	0.001	
Ξ	0.001	
\Omicron	0.001	
Π	0.001	
\Rho	0.001	
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Π	0.001	
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Υ	0.001	
Φ	0.001	
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Ξ	0.001	
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SEO ID NO:21

10

SEO ID NO:22

15

SEQ ID NO:23

CCTTCAGACACCTTCGTCTTCAACCTGGC

25 SEQ ID NO:24

GCAGCCGAGTCGGCACTGGACTTTCAC

30

SEQ ID NO:25

primer for amplification of human TGR62

TGACCTTCTTCATCATTTGATGTG

SEQ ID NO:26

primer for amplification of human TGR62

5
GATAAAGGGCAGACCTGATTCA

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